Maturity studies on first-stubble cane grown on mixed land at the Ardoyne Farm, USDA-ARS,

SRRC, Sugarcane Research Unit, Houma, LA, November 20, 2006¹.

Sixixo, Sugarca	I ROSCE	iron Onit,	riourna, L	., 140 VCII	1001 20, 20				r	1	
											TRS
									0	Previous	change
		Stalk ²						3	Sugar	sample	from
					l	Normal juice ³			yield	date ⁴	previous
Variety	Year	Wt.	Lh.	Dia.	Density	Bx.	Su.	Pu.	TRS	TRS	sample
		(lb.)	(in.)	(in.)	(g/cm3)	(%)	(%)	(%)	(lb.)	(lb.)	(lb.)
LCP 85-384	2006	2.0	101	0.81	1.13	18.13	15.64	86.28	293.0	277.6	15.4
	2005	1.7	86	0.77	1.12	18.46	15.74	85.26	293.3	279.4	13.9
	2004	1.8	101	0.73	1.35	17.42	14.89	85.50	277.9	271.8	6.1
	2003	1.7	89			18.79	16.14	85.88	301.7	268.4	33.3
	2002	2.0	96			17.51	14.98	85.54	279.5	254.6	24.9
HoCP 85-845	2006	2.4	106	0.87	1.08	17.77	15.22	85.60	284.0	275.5	8.5
11001 03-043	2005	2.0	92	0.80	1.15	17.60	14.78	83.97	273.4	271.5	1.9
	2003	2.2	103	0.80	1.13	16.93	14.76	84.48	265.5	273.1	-7.6
	2003	1.8	85			18.70	16.05	85.82	300.0	279.6	20.4
	2002	2.2	92			17.38	14.82	85.29	276.1	266.1	10.0
							L				
CP 89-2143	2006	2.3	92	0.94	1.10	17.31	14.96	86.41	274.8	261.5	13.3
	2005										
	2004										
	2003										
-	2002										
HoCP 91-555	2006	1.8	95	0.78	1.11	18.75	16.02	85.42	295.8	281.4	14.4
	2005	1.7	90	0.74	1.17	18.95	16.06	84.76	295.5	275.4	20.1
	2004	2.0	106	0.78	1.19	18.02	15.32	85.02	282.2	283.8	-1.6
	2003	1.7	87			19.74	16.94	85.80	313.4	287.4	26.0
-	2002	1.7	90			18.53	15.90	85.78	294.1	260.5	33.6
		1	1	1	1 1	l	1	1		1	1
Ho 95-988	2006	2.4	100	0.87	1.15	17.93	15.40	85.91	288.0	279.4	8.6
	2005	2.1	89	0.87	1.02	17.82	15.01	84.21	278.0	268.1	9.9
	2004										
	2003										
	2002									<u> </u>	
HoCP 96-540	2006	2.4	103	0.86	1.18	17.84	15.15	84.89	284.4	270.7	13.7
	2005	2.3	94	0.86	1.16	18.13	15.42	85.05	289.8	265.9	23.9
	2004	2.5	107	0.81	1.46	17.13	14.35	83.75	267.7	260.1	7.6
	2003	2.1	96			18.84	16.07	85.33	302.5	271.6	30.9
-	2002	2.2	98			17.31	14.55	84.04	264.0	252.8	11.2
					1		l	l			
L 97-128	2006	2.6	114	0.87	1.09	18.44	15.76	85.46	296.7	284.4	12.3
	2005	1.9	93	0.78	1.11	18.57	15.54	83.66	289.8	277.7	12.1
	2004 2003	2.5	113	0.80	1.30	18.11	15.33	84.67	287.5 327.4	287.9	-0.4 21.7
	2003	1.9	98			20.05	17.31	86.31	327.4	305.7	
				1			ı	ı			
L 99-226	2006	2.8	110	0.91	1.11	18.70	16.17	86.45	306.1	291.8	14.3
	2005	2.3	100	0.84	1.16	18.66	16.02	85.85	302.3	287.4	14.9
	2004										
(0 10)	2003										
(Con't)	2002										

			Sta	alk ²		N	ormal juic	e^3	Sugar yield	Previous sample date ⁴	TRS change from previous
Variety	Year	Wt.	Lh.	Dia.	Density	Bx.	Su.	Pu.	TRS	TRS	sample
		(lb.)	(in.)	(in.)	(g/cm3)	(%)	(%)	(%)	(lb.)	(lb.)	(lb.)
L 99-233	2006	2.1	114	0.82	1.01	18.17	15.57	85.67	290.7	268.1	22.6
	2005	1.8	101	0.73	1.15	18.00	15.16	84.22	280.8	268.2	12.6
	2004	2.0	114	0.73	1.31	17.15	14.22	82.83	261.5	268.8	-7.3
	2003										
	2002										
Averages ⁵	2006	2.2	101	0.83	1.13	18.12	15.51	85.55	289.3	276.3	13.0
	2005	1.9	93	0.79	1.14	18.12	15.30	84.46	284.2	271.1	13.2
	2004	2.3	106	0.80	1.29	17.37	14.72	84.74	273.9	273.9	0.0
	2003	1.9	90			19.11	16.44	86.03	308.0	279.7	28.4
	2002	2.0	93			17.59	15.00	85.21	277.6	253.2	24.4

¹ Data for each parameter represents the average of four replications of 15 stalks each.

² Stalk diameter and density based on a subsample consisting of 8 randomly selected stalks from the 15-stalk sample of each rep.

Brix factor = .8854; Sucrose factor = .8105.
Previous sample date was November 6, 2006.

⁵ Averages are based only on varieties included in previous year's first-stubble maturity study (LCP 85-384, HoCP 85-845, HoCP 91-555, and HoCP 96-540).

rtoodaron onit,		,								Previous	TRS change
									Sugar	sample	from
		Stalk ²				N	ormal juic	e ³	yield	date ⁴	previous
Variety	Year	Wt.	Lh.	Dia.	Density	Bx.	Su.	Pu.	ŤRS	TRS	sample
		(lb.)	(in.)	(in.)	(g/cm3)	(%)	(%)	(%)	(lb.)	(lb.)	(lb.)
LCP 85-384	2006	1.9	102	0.79	1.11	17.73	15.15	85.46	282.6	262.3	20.3
	2005	1.8	86	0.80	1.05	18.59	15.84	85.20	295.1	254.7	40.4
	2004	2.0	98	0.76	1.21	17.38	14.68	84.45	272.3	264.2	8.1
	2003	1.9	97			18.11	15.44	85.29	287.8	246.0	41.8
	2002	2.1	97			16.47	13.81	83.87	255.4	215.6	39.8
HoCP 85-845	2006	3.0	112	0.98	1.01	17.82	15.18	85.17	282.6	269.8	12.8
	2005	2.1	89	0.89	1.05	18.19	15.40	84.62	285.8	258.2	27.6
	2004	2.5	100	0.82	1.29	17.22	14.47	84.05	267.9	261.2	6.7
	2003	2.1	97			17.58	14.80	84.20	274.1	246.5	27.6
	2002	2.4	93			16.67	13.92	83.54	257.0	239.5	17.5
CP 89-2143	2006	3.0	103	0.97	1.10	17.55	15.16	86.38	278.5	262.7	15.8
	2005	2.3	85	0.97	0.94	17.49	14.83	84.83	270.3	239.9	30.4
	2004										
	2003										
	2002										
HoCP 91-555	2006	2.2	109	0.81	1.10	19.15	16.50	86.20	305.9	285.5	20.4
HOCF 91-000	2005	1.8	85	0.81	1.10	19.13	16.78	85.00	309.2	274.9	34.2
	2003	2.0	103	0.62	1.06	18.33	15.59	85.08	287.4	264.8	22.6
	2004	2.0	96			18.86	16.02	84.94	295.0	254.3	40.7
	2002	2.0	98			17.95	15.13	84.30	277.8	233.5	44.3
	2002	2.0	- 00	I		17.00	10.10	01.00	277.0	200.0	11.0
Ho 95-988	2006	2.7	109	0.90	1.14	18.19	15.65	85.99	292.7	270.1	22.6
	2005	2.1	84	0.91	1.02	18.48	15.67	84.76	291.1	248.4	42.8
	2004	2.5	101	0.86	1.15	17.15	14.46	84.28	268.0	232.6	35.4
	2003										
	2002										
HoCP 96-540	2006	3.0	119	0.94	1.03	17.86	15.25	85.37	287.0	252.2	34.8
	2005	2.2	87	0.90	1.05	18.02	15.09	83.75	281.6	235.8	45.8
	2004	2.3	102	0.81	1.20	17.62	14.79	83.91	276.2	248.4	27.8
	2003	2.3	101 101			18.02 16.16	14.88 13.17	82.57 81.48	275.7 235.5	248.5 199.5	27.2 36.0
	2002	2.0	101			10.16	13.17	01.40	233.3	199.5	30.0
L 97-128	2006	2.8	119	0.90	1.06	18.31	15.52	84.78	288.5	275.4	13.1
207 120	2005	2.3	96	0.87	1.06	18.95	15.82	83.51	294.9	268.3	26.6
	2004	2.4	111	0.78	1.29	18.68	15.91	85.17	299.3	289.0	10.3
	2003	2.2	101			18.59	15.76	84.78	295.9	255.3	40.6
	2002	2.4	100			16.84	14.02	83.22	263.4	233.4	30.0
				1							
L 99-226	2006	3.4	119	0.98	1.07	19.01	16.47	86.62	312.1	278.7	33.4
	2005	2.6	98	0.92	1.07	19.26	16.41	85.19	308.6	259.1	49.4
	2004	2.8	115	0.89	1.15	17.91	15.10	84.29	282.5	258.5	24.0
	2003										
Con't	2002										
L 99-233	2006	2.2	118	0.82	0.95	18.33	15.73	85.79	291.0	272.4	18.6
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										Previous	change
									Sugar	sample	from
			Stalk ²				Normal juice ³			date ⁴	previous
Variety	Year	Wt.	Lh.	Dia.	Density	Bx.	Su.	Pu.	TRS	TRS	sample
		(lb.)	(in.)	(in.)	(g/cm3)	(%)	(%)	(%)	(lb.)	(lb.)	(lb.)
	2005	1.7	95	0.79	0.97	18.31	15.48	84.58	287.4	268.2	19.3
	2004	1.9	119	0.73	1.13	18.19	15.50	85.17	288.7	261.6	27.1
	2003	2.1	115			17.69	14.89	84.18	275.8	240.0	35.8
	2002										
	1		1	1	1 1		1	1	l		I
HoCP00-950	2006	2.1	103	0.86	1.02	19.21	16.63	86.57	318.1	305.8	12.3
	2005										
	2004										
	2003										
	2002										
-		i	•			İ	•	1			
Averages ⁵	2006	2.6	112	0.88	1.06	18.17	15.52	85.40	289.3	269.0	20.3
	2005	2.1	90	0.87	1.03	18.57	15.71	84.59	291.6	257.4	35.8
	2004	2.3	106	0.80	1.20	17.81	15.06	84.55	280.3	260.0	20.2
	2003	2.1	98			18.29	15.51	84.80	288.2	250.5	36.7
	2002	2.2	97			16.98	14.22	83.73	263.4	230.5	32.9

¹ Data for each parameter represents the average of four replications of 15 stalks each.

² Stalk diameter and density based on a subsample consisting of 8 randomly selected stalks from the 15-stalk sample of each rep.

³ Brix factor = .8854; Sucrose factor = .8105.

⁴ Previous sample date, October 23, 2006.

⁵ Averages are based only on varieties included in previous year's plant-cane maturity study (LCP 85-384, HoCP 85-845, HoCP 91-555, HoCP 96-540, and L 97-128).